

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of: | : | |
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| Robert R. STEUER et al. | : | |
| | : | |
| Application No. (NEW) | : | TC/Art Unit: (not yet assigned) |
| | : | |
| Filed: December 9, 2003 | : | Examiner: (not yet assigned) |
| | : | |
| For: SENSOR FOR TRANSCUTANEOUS | : | Atty Docket: P65684US3 |
| MEASUREMENT OF VASCULAR | : | |
| ACCESS BLOOD FLOW | : | |
| | : | |
| | : | |

NOTICE OF RELATED PATENT APPLICATIONS AND PATENTS
AND INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR 1.97

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicant hereby informs the Examiner that U.S. Applications Nos. 09/750,122, filed December 29, 2000, and 09/765,584, filed January 22, 2001, and U.S. Patents Nos. 5,351,686, 5,456,253, and 6,246,894 are assigned to the same entity as the present patent application, and are believed to be classified in related technologies. It is suggested that the Examiner review these applications and these patents for possible relevance to the present application.

Submitted herewith on form PTO-1449 is a listing of documents known to Applicants and/or their attorney in compliance with the requirements of 37 CFR 1.56. Copies of the documents are

not being submitted, as these documents were previously cited by or submitted to the Patent and Trademark Office in the parent application, Serial No. 09/750,076, filed December 29, 2000. See 37 CFR 1.98(d) and MPEP 609A(2).

Since the Information Disclosure Statement is filed before the issuance of the first Office Action on the merits or within three months of filing, no fee is required. The Commissioner is hereby authorized to charge fees under 37 CFR § 1.17 which may be required for consideration of this paper; or credit any overpayment to Deposit Account No. 06-1358.

In accordance with 37 CFR § 1.97(g) and (h), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, or as an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 CFR § 1.56(b).

Applicants do not waive any rights to appropriate action to establish patentability over the listed documents should they be applied as references against the claims of the present application.

RELEVANCE OF THE DOCUMENTS

All of the documents were previously cited by or submitted to the Patent and Trademark Office in the parent application, Serial No. 09/750,076, filed December 29, 2000.

CONCLUSION

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and to similarly indicate in the official file wrapper of this patent application that the attached documents have been considered.

If the Examiner has any questions or wishes to discuss this application, the Examiner is invited to telephone the undersigned representative at the number set forth below.

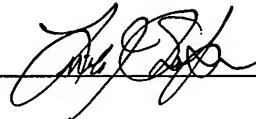
Respectfully submitted,

JACOBSON HOLMAN, PLLC

Date: December 9, 2003

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By: _____



Linda J. Shapiro
Registration No. 28,264

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|--------------------------------------------------------------------|--------------------------------------|--------------------------------------|
| Form PTO-1449 Information Disclosure Citation | Attorney Docket P65684US3 | Application No. (NEW) |
| | Applicant Robert R. STEUER et al. | |
| | Filing Date December 9, 2003 | Group Art Unit (not yet assigned) |

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| | AA | H1,114 | 12/1992 | Schweitzer et al. | | | |
| | AB | 3,638,640 | 02/01/1972 | Shaw | | | |
| | AC | 3,880,151 | 04/29/1975 | Nilsson et al. | | | |
| | AD | 4,014,321 | 03/29/1977 | March | | | |
| | AE | 4,081,372 | 03/28/1978 | Atkin et al. | | | |
| | AF | 4,086,915 | 05/02/1978 | Kofsky et al. | | | |
| | AG | 4,167,331 | 09/11/1979 | Nielsen | | | |
| | AH | 4,181,610 | 01/01/1980 | Shintani et al. | | | |
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| | AJ | 4,266,554 | 05/12/1981 | Hamaguri | | | |
| | AK | 4,295,470 | 10/20/1981 | Shaw et al. | | | |

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|--|----|-----------------|---------|---------|-------|-----------|-------------|
| | AL | EP104772B1 | 04/1984 | Europe | | | Yes No |
| | AM | EP160768B1 | 11/1985 | Europe | | | Yes No |
| | AN | WO 86/06946 | 12/1986 | WIPO | | | Yes No |
| | AO | WO 89/01758 | 03/1989 | WIPO | | | Yes No |
| | AP | WO 93/06456 | 04/1993 | WIPO | | | Yes No |

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

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|--|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | AR | J.P. Payne and J.W. Severinghaus, Eds., <i>Pulse Oximetry</i> , Chapters 1 and 2 (©1986). |
| | AS | John D. Bower and Thomas G. Coleman, <i>Circulatory Function During Chronic Hemodialysis</i> , Vol. XV <i>Trans. Amer. Soc. Artif. Int. Organs</i> , 1969, 373-377. |
| | AT | Larry Reynolds, C. Johnson, A. Ishimaru, "Diffuse reflectance from a finite blood medium: applications to the modeling of fiber optic catheters," Sept. 1976, Vol. 15, No. 9, <i>Applied Optics</i> , pp. 2059-2067. |

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| Examiner | Date Considered |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

Form PTO-1449**Information Disclosure Citation**Attorney Docket
P65684US3Application No.
(NEW)Applicant
Robert R. STEUER et al.Filing Date
December 9, 2003Group Art Unit
(not yet assigned)**U.S. Patent Documents**

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| | BA | 4,416,285 | 11/22/1983 | Shaw et al. | | | |
| | BB | 4,446,871 | 05/08/1984 | Imura | | | |
| | BC | 4,653,498 | 03/31/1987 | New, Jr. et al. | | | |
| | BD | 4,655,225 | 04/07/1987 | Dahne et al. | | | |
| | BE | 4,685,464 | 08/11/1987 | Goldberger et al. | | | |
| | BF | 4,714,080 | 12/22/1987 | Edgar, Jr., et al. | | | |
| | BG | 4,770,179 | 09/13/1988 | New et al. | | | |
| | BH | 4,805,623 | 02/21/1989 | Jöbsis | | | |
| | BI | 4,819,752 | 04/11/1989 | Zelin | | | |
| | BJ | 4,821,734 | 04/18/1989 | Koshino | | | |
| | BK | 4,824,242 | 04/25/1989 | Frick et al. | | | |

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|--|----|-----------------|------------|---------|-------|-----------|-------------|
| | BL | EP 0 529 412 | 03/03/1993 | EPO | | | Yes No |
| | BM | | | | | | Yes No |
| | BN | | | | | | Yes No |
| | BO | | | | | | Yes No |
| | BP | | | | | | Yes No |

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

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| | BR | R.N. Greenwood, C. Aldridge, L. Goldstein, L.R.I. Baker and W.R. Cattell, "Assessment of arteriovenous fistulae from pressure and thermal dilution studies: clinical experience in forearm fistulae," <i>Clinical Nephrology</i> , Vol. 23, NO. 4-1985, pp. 189-197. |
| | BS | R.N. Greenwood, C. Aldridge and W.R. Cattell, "Serial blood water estimations and in-line blood viscometry: the continuous measurement of blood volume during dialysis procedures," <i>Clinical Science</i> (1984)66, pp. 575-583. |
| | BT | C. Aldridge, R.N. Greenwood, W.R. Cattell and R.V. Barrett, "The assessment of arteriovenous fistulae created for haemodialysis from pressure and thermal dilution measurements," <i>Journal of Medical Engineering & Technology</i> , Vol. 8, No. 3, (May/June), pp. 118-124. |

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| | CA | 4,825,872 | 05/02/1989 | Tan et al. | | | |
| | CB | 4,825,879 | 05/02/1989 | Tan et al. | | | |
| | CC | 4,832,484 | 05/23/1989 | Aoyagi et al. | | | |
| | CD | 4,863,265 | 09/05/1989 | Flower et al. | | | |
| | CE | 4,867,557 | 09/19/1989 | Takatani et al. | | | |
| | CF | 4,920,972 | 05/01/1990 | Frank et al. | | | |
| | CG | 4,925,299 | 05/15/1990 | Meisberger et al. | | | |
| | CH | 5,028,787 | 07/02/1991 | Rosenthal et al. | | | |
| | CI | 5,035,243 | 07/30/1991 | Muz | | | |
| | CJ | 5,048,524 | 09/17/1991 | Bailey | | | |
| | CK | 5,054,487 | 10/08/1991 | Clarke | | | |

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|--|----|-----------------|------|---------|-------|-----------|--------------|
| | CL | | | | | | Yes No |
| | CM | | | | | | Yes No |
| | CN | | | | | | Yes No |
| | CO | | | | | | Yes No |
| | CP | | | | | | Yes No |

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

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|--|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | CR | L. Goldstein, L. Pavitt, R.N. Greenwood, C. Aldridge, L.R.I. Baker and W.R. Cattell, "The Assessment of Arteriovenous Fistulae From Pressure and Recirculation Studies," <i>ProcEDTNA-ERCA</i> (1985) Vol. 14., pp. 207-215. |
| | CS | R.N. Greenwood, C. Aldridge, L. Goldstein, L.R.I. Baker and W.R. Cattell, "Assessment of Arteriovenous Fistulas From Pressure and Recirculation Studies: Clinical Experience In 215 Upper Limb Fistulas," <i>ProcEDTA-ERA</i> (1985), Vol. 22, pp. 296-302. |
| | CT | Joseph M. Schmitt, James D. Meindl and Frederick G. Mihm, "An Integrated Circuit-Based Optical Sensor for In Vivo Measurement of Blood Oxygenation," <i>IEEE Transactions On Biomedical Engineering</i> , Vol. BME-33, No. 21, Feb. 1986, pp. 98-107. |

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(not yet assigned)**U.S. Patent Documents**

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| | DA | 5,057,695 | 10/15/1991 | Hirao et al. | | | |
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| | DC | 5,059,394 | 10/22/1991 | Phillips et al. | | | |
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| | DE | 5,092,836 | 03/03/1992 | Polaschegg | | | |
| | DF | 5,101,825 | 04/07/1992 | Gravenstein et al. | | | |
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| | DI | 5,137,023 | 08/11/1992 | Mendelson et al. | | | |
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| | DK | 5,193,543 | 03/16/1993 | Yelderman | | | |

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|--|----|-----------------|------|---------|-------|-----------|--------------|
| | DL | | | | | | Yes No |
| | DM | | | | | | Yes No |
| | DN | | | | | | Yes No |
| | DO | | | | | | Yes No |
| | DP | | | | | | Yes No |

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

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| | DR | Joseph M. Schmitt, Fred G. Mihm and James Meindl, <i>New Methods for Whole Blood Oximetry</i> , Annals of Biomedical Engineering, Vol., 14, pp. 35-52, 1986. |
| | DS | Mark R. Arnfield, J. Tulip and Malcolm McPhee, "Optical Propagation in Tissue With Anisotropic Scattering," <i>IEEE Transactions on Biomedical Engineering</i> , Vol. 35, No. 5, May 1988, pp. 372-381. |
| | DT | N.M. Krivitski, "Theory and validation of access flow measurements by dilution technique during hemodialysis," <i>Kidney Int</i> 48:244-250, 1995 |

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| | EG | 5,551,422 | 09/3/1996 | Simonsen et al. | | | |
| | EH | 5,595,182 | 01/21/1997 | Krivitski | | | |
| | EI | 5,785,657 | 07/28/ 1998 | Breyer et al. | | | |
| | EJ | 5,797,841 | 08/25/1998 | Delonzor et al. | | | |
| | EK | 5,803,908 | 09/08/1998 | Steuer et al. | | | |

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| | | Document Number | Date | Country | Class | Sub-Class | Translation |
|--|----|-----------------|------|---------|-------|-----------|-------------|
| | EL | | | | | | Yes No |
| | EM | | | | | | Yes No |
| | EN | | | | | | Yes No |
| | EO | | | | | | Yes No |
| | EP | | | | | | Yes No |

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

| | | |
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| | ER | N.M. Krivitski, "Novel method to measure access flow during hemodialysis by ultrasound velocity dilution technique," <i>ASAIO J</i> 41:M741-M745, 1995 |
| | ES | T.A. Depner and N.M. Krivitski, "Clinical measurement of blood flow in hemodialysis access fistulae and grafts by ultrasound dilution," <i>ASAIO J</i> 41:M745-M749, 1995) |
| | ET | D. Yarar et al., "Ultrafiltration method for measuring vascular access flow rates during hemodialysis," <i>Kidney Int.</i> , 56: 1129-1135 (1999) |

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| | FA | 5,817,009 | 10/06/1998 | Rosenheimer et al. | | | |
| | FB | 5,974,337 | 10/26/1999 | Kaffka et al. | | | |
| | FC | 6,041,246 | 03/21/2000 | Krivitski et al. | | | |
| | FD | 6,117,099 | 09/12/2000 | Steuer et al. | | | |
| | FE | 6,153,109 | 11/28/2000 | Krivitski | | | |
| | FF | 6,167,765 | 01/02/2001 | Weitzel | | | |
| | FG | 6,189,388 | 02/20/2001 | Cole et al. | | | |
| | FH | 6,210,591 | 04/03/2001 | Krivitski | | | |
| | FI | 6,452,371 | 09/17/2002 | Brugger | | | |
| | FJ | | | | | | |
| | FK | | | | | | |

Foreign Patent Documents

| | | Document Number | Date | Country | Class | Sub-Class | Translation |
|--|----|-----------------|------|---------|-------|-----------|-------------|
| | FL | | | | | | Yes No |
| | FM | | | | | | Yes No |
| | FN | | | | | | Yes No |
| | FO | | | | | | Yes No |
| | FP | | | | | | Yes No |

Other Documents (Including Author, Title, Date, Pertinent Pages, etc.)

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| | FR | N.M. Krivitski et al., "Saline Release Method to Measure Access Flow (AF) by Ultrasound Dilution during Hemodialysis," <i>JASN Abstracts</i> , 8:164A, 1997 |
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| | FT | |

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